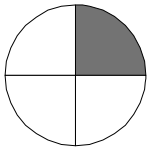
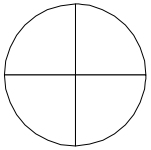
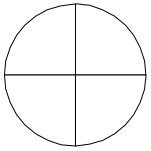
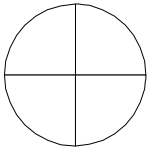
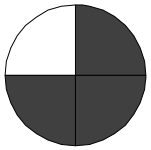
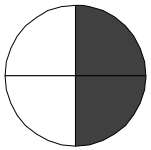
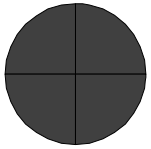
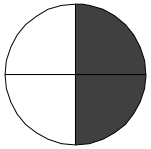
Opportunities & Needs from Environmentally Challenged

#1 Hydrogen Powered Large Commercial Aircraft - visible carbon free airplane; infrastructure, i.e. cost of producing H2; safety - real and perceived.

		Why This Score?	Rewrite for a Better Fit?
Pushing the Envelope		Concerns about CO_2 creation in making hydrogen; expense is more important in our world; could be used for large airports; no economic incentives to do it; no tax incentives	If much cheaper; we want an alternative fuel, if it is cost competitive
Grounded		Do you have any way of dealing with nuclear waste No Match	
Regional Tensions		No relevance at all	There is no rewrite that would make a better fit
Trading Places		We don't have a customer demand	

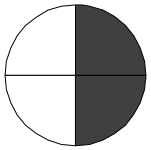
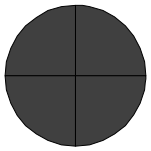
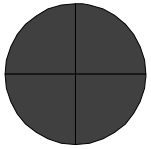
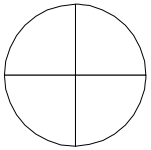
Opportunities & Needs from Environmentally Challenged

#2 Carbon Based Fuel Aircraft Technologies For Minimizing CO2 emissions - may be best solution for stop-gap, refit potential; not a complete solution, competitive with other modes.

		Why This Score?	Rewrite for a Better Fit?
Pushing the Envelope		We like it; Make it faster; Research not lost in our world; particularly relevant are MEMS and engine research	Whole pie if price is lower
Grounded		Efficient engines with light weight materials is a good fit; advanced materials matches our world	We are not looking for fuel savings
Regional Tensions		Very relevant to our world, but not for the same reasons	
Trading Places		We have an aging fleet that requires the same technology; fuel savings is important	Cost benefit trade off; you are willing to spend more. We think our customers would be favorable to environmental improvement. It is a firm 2.

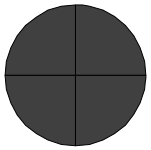
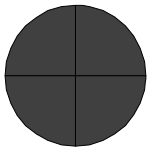
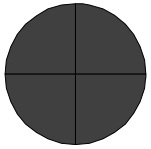
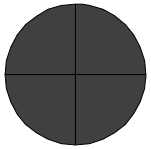
Opportunities & Needs — from Environmentally Challenged

#3 Improved Security for Civil Aircraft to Combat Terrorism - need to counter other countries' threat in this scenario; add weight, complexity increased price.

		Why This Score?	Rewrite for a Better Fit?
Pushing the Envelope		Our world tensions not that great. We think these technologies are desirable but they are not a priority; cost is a factor here	If our world became more violent, we would assign a ¾; If there is a cost decline it would move to ¾
Grounded		We are highly compatible; you have "good terrorists" while we have bad terrorists	
Regional Tensions		Highly relevant	
Trading Places		These improvements cost too much	We won't spend money because it has no value to our customer base

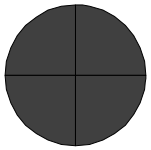
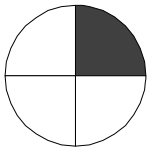
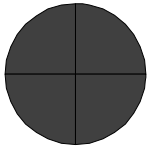
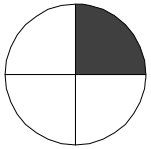
Opportunities & Needs — from Environmentally Challenged

#4 ATM for fuel efficiency through shorter routes, reduced holding, and meteorological optimization of flight paths - minimize fuel, minimize CO2.

		Why This Score?	Rewrite for a Better Fit?
Pushing the Envelope		We invented this technology; we need it more than you; our world will need more ATM than yours, we have a 125% compatibility	Develop ways to control weather; Your whole pie is only a piece of our pie; yours is efficient, ours is efficient with higher capacity
Grounded		We have more separation, more airports; we emphasize free-flight, on-board flight planning	Driven by different reasons, may look differently; Philosophically a full pie, but may be different applications
Regional Tensions		We have different approach, but we have compatibility	
Trading Places		We want to minimize costs; minimize time; we want to move more traffic	

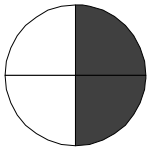
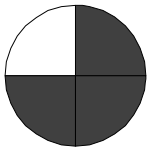
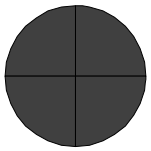
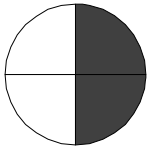
Opportunities & Needs from Environmentally Challenged

#5 Uninhabited Aircraft, Smaller and Thus Reduced Weight and Fuel Consumption - reduced weight, fuel consumption, less CO2 output; acceptance by public.

		Why This Score?	Rewrite for a Better Fit?
Pushing the Envelope		High compatibility, But public acceptance of passenger aircraft will be a problem; probably only cargo and military are acceptable	We do not think it can be used for public transport
Grounded		Crew on board doesn't reduce weight; Cargo and military is a high cross over; however there are liability problems; So much redundancy required that you will not save weight	Other than reconnaissance, we don't see need
Regional Tensions		It was a low priority, but we have it as a system of interest ; it is a fit	
Trading Places		We didn't get rid of the pilot, but we wanted more automatic aircraft; Secure communications; system engineering is compatible, but the vehicle has to be different	A pilot must be in it, even if he is an observer; if so then 2/4 filled in; in addition, if you could show major cost reduction, it would be ¾

Opportunities & Needs from Environmentally Challenged

#6 Mini Launchers for Micro Payloads - Civil and Military Reconnaissance - tensions, places we can't fly over, "charters," industrial intelligence, int'l science groups.

		Why This Score?	Rewrite for a Better Fit?
Pushing the Envelope		There is some potential in our world; industrial espionage, low cost non manned observation for military applications; universities might like this concept	Consumer demand could move this up to ¾
Grounded		We were perfectly matched until you mentioned payload – we want 800 lbs Probably doesn't change the match;	We are talking LEO; the temporary nature of the sensors is the issue; if yours are more permanent, it could be a 4 quarters
Regional Tensions		We have need to monitor; We need to quickly replace our sensors	
Trading Places		We saw large demand for consumer products for access to space; We want reconnaissance; weight is not a major concern	This technology could be a three quarters; our emphasis is consumer driven demand; cheap is more important in our world; we want more sustainability